

E-mail Shared Services Rates Analysis

CAB Presentation - September 15, 2010

Introduction

After the shared Email service definition was approved by the Executive Steering Committee (ESC), the Shared Email Advisory Committee and the CAB Rates Sub Committee joined together to analyze and agree on rates for shared Email. This document summarizes the service components, rates, assumptions and next steps for shared Email.

Attachment 1: Summarizes the major new features and benefits for shared Email

Attachment 2: Rates Analysis for Shared Email

Attachment 3: Service Definition for Shared Email, as presented to the CAB on June 11, 2010

Attachment 4: Shared service implementation topics – from the shared services model.

Major Service Components and Rates

Exchange 2010	\$2.64
Filtering Gateway	\$.44
<u>Vault: Secure Retention and Search</u>	<u>\$1.82</u>
Shared Email Monthly Mailbox Rate	\$4.90

Other costs

Vault Storage - Monthly Rate \$4.27/ GB

(Rate should decrease with planned acquisition)

Optional Secure Email - Per user Monthly Rate \$.83

(Assumes 10,000 users. Rate could still decrease)

Agency conversion costs will be determined by completing the readiness checklist

Assumptions

- Agencies continue to provide their own Tier 1 help desk support to manage their customer relationships
- Since agencies will continue to update Active Directory, administering mailbox adds and changes requires little extra effort. Agencies administer their own mailboxes.
- Use Outlook client 2007 or later
- Agencies must be in the Enterprise Active Directory to use Email Shared Service
- Everyone uses the vault and will pass through the filtering gateway

Key Recommendations

- Recommend the \$4.90 / month mailbox rate for ESC adoption
- Move forward with implementation activities pending ESC approval

Next Steps

- Continue to collect outstanding agency data and verify the statewide business case
- Form a sub-group to complete performance measures for the service level agreement
- Commence Implementation activities under Advisory Committee direction:
 - Complete and approve the implementation work plan
 - Complete agency readiness assessments using the checklist and develop agency conversion plans and schedules
 - Add agency conversion plans and schedules to the overall work plan
 - Increase outreach to the public records officers for vault implementation
 - Acquire the next planned increment of Exchange 2010 infrastructure pending ESC approval of the rate. This increases capacity from 8,000 to 48,000 users.
- Address staffing, communications, financial considerations, and other implementation topics listed in Appendix 2 of the Shared Services Model (see Attachment 4)
- Following initial implementation, the advisory committee will address optional services such as ActiveSync.

Issues / Lessons Learned

The shared Email Advisory/Rates Committee surfaced key issues which other shared service initiatives will encounter. The experience in addressing these issues for shared Email will provide important lessons learned for other initiatives.

- Agree on the right FTE support and cost level for the service provider. Document the rationale used.
- Determine how to realign staffing levels in the provider and consumer agencies
- Developing the baseline cost comparison for the business case can be hard to assess since current actual costs are often hard to identify.
- The financial considerations, including the funding source, must be carefully addressed at statewide and agency levels.

CIOs anticipated these and other issues when the shared service model was developed.

Attachment 1
Shared Email Features and Rates
September 15, 2010

	Significant New or Improved Features	Cost per Mailbox
Exchange	Exchange 2010 Role Based Administration Support for High Availability Tier 2 & 3 Support Encrypted <u>Transmission</u> Inside SGN Improved Outlook Web Access Disaster Recovery	2.64
Gateway	Virus Protection Spam Filtering Inbound and Outbound Content Filtering Data Loss Prevention Disaster Recovery	0.44
Vault	Secure Email Records Retention Advanced Search and Discovery Reduced Staff Time for Search Reduced Storage Costs Automated Retention Policies Single Instance Store Retention Periods can be Changed Disaster Recovery Data De-duplication	1.82
Total Cost		\$4.90

Note: Secure Email is an optional service provided as needed by the Gateway.

Some agencies have some of the above features in current agency email systems.

Attachment 2
Rates Analysis for Shared E-Mail
September 15, 2010

Software					
Symantec					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
Symantec EV Licenses (one time)	Vault	75000	\$ 15.00	\$ 1,125,000.00	\$ 0.25
Symantec EV Maintenance per Year	Vault	75000	\$ 5.00		\$ 0.42
Server Licenses (one time)					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
Windows 2008 R2	Exchange	22	\$ 472.82	\$ 10,402.04	\$ 0.00
Windows 2008 R2 Enterprise (4 TMG)	Gateway	58	\$ 1,535.00	\$ 89,030.00	\$ 0.02
SQL Server 2008	Exchange	4	\$ 5,594.15	\$ 22,376.60	\$ 0.00
Exchange 2010 Enterprise	Exchange	50	\$ 2,638.00	\$ 131,900.00	\$ 0.03
MS Threat Management Gateway	Gateway	3	\$ 3,753.00	\$ 11,259.00	\$ 0.00
Microsoft MOM Agents	Exchange	76	\$ 281.20	\$ 21,371.20	\$ 0.00
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
2 SSL Certificates (Threat Management Gateway)	Gateway	2	\$ 175.00	\$ 350.00	\$ 0.0004
Hardware					
Already Purchased:					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
Blade Chassis (DAS)		3	\$ 32,402.64	\$ 97,207.92	\$ 0.02
Mailbox		3	\$ 9,840.01	\$ 29,520.03	\$ 0.01
Public Folder		3	\$ 9,840.01	\$ 29,520.03	\$ 0.01
CAS		2	\$ 7,308.00	\$ 14,616.00	\$ 0.00
Hub		2	\$ 6,711.00	\$ 13,422.00	\$ 0.00
Hub/CAS		1	\$ 9,629.01	\$ 9,629.01	\$ 0.00
MDS 600		3	\$ 51,829.00	\$ 155,487.00	\$ 0.03
Note: these costs are not included in the per-mailbox total. They represent a quoted price, but the vendor applied a bottom-line discount at the time of purchase. The discounted					
			Total Cost	\$ 349,401.99	\$ 0.08
	Exchange		Actual Cost	\$ 241,003.41	\$ 0.05
To Be Purchased:					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
Mailbox	Exchange	24	\$ 9,840.01	\$ 236,160.24	\$ 0.05
CAS	Exchange	7	\$ 7,308.00	\$ 51,156.00	\$ 0.01
Hub/CAS	Exchange	1	\$ 9,629.01	\$ 9,629.01	\$ 0.00
Storage:	Exchange			\$ -	\$ -
MDS 600 w/70 600 GB Drives	Exchange	9	\$ 51,829.00	\$ 466,461.00	\$ 0.10
600 GB Drives to fill out exiting storage	Exchange	120	\$ 642.00	\$ 77,040.00	\$ 0.02
WASERV EV 9.0 Upgrade					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
ProLiant DL460C Blade w/8 GB & 8-way Proc (MB Archive Serv	Vault	16	\$ 6,711.00	\$ 107,376.00	\$ 0.02
ProLiant DL460C Blade w/8 GB & 8-way Proc (Journal)	Vault	2	\$ 6,711.00	\$ 13,422.00	\$ 0.00
ProLiant DL460C Blade w/16GB & 8-way Proc (Discovery)	Vault	4	\$ 7,308.00	\$ 29,232.00	\$ 0.01
SQL Cluster	Vault	4	\$ 9,840.00	\$ 39,360.00	\$ 0.01
Blade Chassis (SAN)	Vault	2	\$ 48,282.44	\$ 96,564.88	\$ 0.02
Threat Mgt Gateway					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
HP DL360 Servers	Gateway	3	\$ 4,141.00	\$ 12,423.00	\$ 0.00
HP DL360 Servers	Gateway	1	\$ 5,243.01	\$ 5,243.01	\$ 0.00
Virtual Servers					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
Virtual Machines for WaSERV DR (Standby)	Vault	24	\$ 250.00	\$ 6,000.00	\$ 0.08
VM for Agency Domain Controllers	Exchange	70	\$ 250.00	\$ 17,500.00	\$ 0.23

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September 15, 2010

Virus Protection					
Trend Micro					
Item	Supports	QTY	Unit Cost	Total cost	Cost/Mailbox
One Time Cost	Exchange	75000	\$ 8.43	\$ 632,250.00	\$ 0.14
Annual Maintenance	Exchange	75000	\$ 2.81	\$ 210,750.00	\$ 0.23
Hardware - One time					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
IronPort C660, Std Config	Gateway	3	\$ 32,475	\$ 97,425.00	\$ 0.02
Rails	Gateway	4	\$ 175	\$ 700.00	\$ 0.00
IronPort M1060, Std Config	Gateway	1	\$ 14,975	\$ 14,975.00	\$ 0.00
Licensing - Annual Cost					
Item	Supports	QTY	Unit Cost	Total Cost	Cost/Mailbox
IronPort Anti-Spam	Gateway	75000	\$ 1.12	\$ 84,000.00	\$ 0.09
Sophos	Gateway	75000	\$ 0.54	\$ 40,500.00	\$ 0.05
VOF	Gateway	75000	\$ 0.66	\$ 49,500.00	\$ 0.06
IronPort Centralized Mgmt for C660	Gateway	3	\$ 990.00	\$ 2,970.00	\$ 0.00
Email Security Mgmt Bundle for C660	Gateway	3	\$ 2,202.67	\$ 6,608.01	\$ 0.00
Facilities, Firewall, Network					
Item	Supports	Qty	Monthly Cost	Total Monthly	Cost/mailbox
Replication Network	Exchange	1	\$ 6,589.00	\$ 6,589.00	\$ 0.09
ACE Load Balancers	Exchange	1	\$ 4,319.84	\$ 4,319.84	\$ 0.06
Messaging Firewalls	Exchange	4	\$ 1,500.00	\$ 6,000.00	\$ 0.08
Facilities Infrastructure	Exchange	74	\$ 125.00	\$ 9,250.00	\$ 0.12
Network Ports on Dedicated Switch	Exchange	24	\$ 50.00	\$ 1,200.00	\$ 0.02
Vendor Support					
Item	Supports	Qty	Annual Cost	Cost/mailbox	
EV Business Critical Support	Vault	1	\$ 50,000.00	\$ 0.06	
Microsoft Premier Support	Exchange	1	\$ 100,000.00	\$ 0.11	
Platinum Support for Cisco IronPort C660	Gateway	3	\$ 7,685.33	\$ 0.03	
Platinum Support for Cisco IronPort M1060	Gateway	1	\$ 2,964.50	\$ 0.00	
FTE Support					
Item	Supports	Qty	Annual Cost	Cost/mailbox	
FTE Support	See next page for breakdown			\$ 2.39	
Total Monthly Mailbox Cost		Monthly Cost per Mailbox \$ 4.90			

Attachment 2
Rates Analysis for Shared E-Mail
September 15, 2010

Note: the following two tables show how the FTE costs were derived. The first table shows the spread of FTE effort across ITS job classes, and the second table shows what activities the FTEs are to perform							
FTE requirements for M & O							
Item	Total	ITS 2	ITS 3	ITS 4	ITS 5	ITS6	ITS7
Call Center	0.00	0					
Exchange	6.75		2.5	2	1	1	0.25
Vault	4.75		1.25	1.5	1	1	
Gateway	1.00			1			
Physical Server Admin	1.50			1.5			
Active Directory	0.50				0.5		
Maintenance and Op's FTE support Total	14.50	0	3.75	6	2.5	2	0.25
	Monthly cost per ITSx	\$ 10,720	\$ 11,450	\$ 12,154	\$ 12,925	\$ 13,779	\$ 14,240
	Monthly total per class	\$ -	\$ 42,937	\$ 72,922	\$ 32,312	\$ 27,557	\$ 3,560
	Monthly total overall	\$ 179,289					
Activity	FTE Count	Notes					
Call Center	0	7x24					
Exchange		Assumes 1 FTE/10,000 Mailboxes = 7.5 FTE spread across the tiers listed below					
T1	2.5	First line support (7x24 command center)					
T2	3	Monitor, capacity mgmt, problem resolution, patches					
T3	1.25	Planning, architecture, problem resolution, and supervision					
Enterprise Vault							
T1	1.25	Discovery Accelerator level 1 (litigation holds, public disclosure, records retention) and storage					
T2	2.5	Discovery Accelerator Admin and EV Admin					
T3	1	EV System Admin					
Gateway	1	Data security, scan mail, gateway, firewall, policies					
Server Administration							
Physical Server Admin	1.5	1 FTE per 50 Servers					
Active Directory	0.5						
Total	14.5						
	Infrastructure	FTEs	Total				
Exchange	\$ 1.37	\$ 1.27	\$ 2.64				
Vault	\$ 0.87	\$ 0.95	\$ 1.82				
Gateway	\$ 0.28	\$ 0.16	\$ 0.44				
Total	\$ 2.51	\$ 2.39	\$ 4.90				

Email Shared Services To-Be Definition

June 11, 2010 CAB Presentation

Introduction

- Team worked together to construct the as-is and to-be models of the email service.
- To-be model presented to the Email Shared Services CIO workgroup.
- Service definition was sent to the DIS development team for incorporation into the existing projects

Major Service Components

Exchange 2010

- Improved management of mailboxes
- Support for high availability
- No lost emails
- Improved search and discovery
- Improved administrative flexibility – two levels
 - full agency management of mail resources
 - central administration

Gateway

- Email content filtering
- Improved agency administration
- Single filtering solution for the state
- Secure email

Vault

- Secure retention
- Advanced search and discovery
- Ability to change retention policies after implementation
- Significantly reduces storage costs – reducing the cost of the shared service

Additional Components

- Blackberry support
- ActiveSync
- Fax – not currently defined
- Unified Messaging

Assumptions

- Exchange 2010 is the preferred platform
- Outlook client is 2007 or later
- Mac version is Entourage 2010
- Agencies must be in the Enterprise Active Directory to use Email Shared Service

Email Shared Services To-Be Definition June 11, 2010 CAB Presentation

- Everyone uses the vault and will pass through the gateway
- Data at rest on the exchange server will not be encrypted.
- Secure email is supported by:
 - encrypting the tunnel
 - providing optional encryption of messages at rest
 - gateway controls for external email

Key Recommendations

- Deleted items retention is 31 days
- Deleted items will not be vaulted.
- Remaining items will move to the Vault after 30 days.
- Attachment size set at 30MB maximum
- Set mailbox size limit to 1gb
- All users of the shared service will use the vault
- All agencies will use Enterprise Active Directory

Next Steps

- Begin planning for implementation
- Analyze impact on applications
- Determine agency roles in implementation
- Determine conversion priorities
- Assess impact of caching
- Cost determination and pricing

Requirements

Email

1. Recipient management can be customized for an agency. E.g. Mailbox and distribution list administration can be delegated to agency staff or done by DIS staff if agency chooses
2. Support for applications that read and write to the exchange database
3. Support staff of the shared servers for any function may be required to have background checks including finger printing to be performed by the agency.
4. Deleted item retention setting can be customized at the exchange database.
5. Attachment size needs to be configurable for each agency due to network, bandwidth considerations (See recommendations.)
6. Ability for agency admin to purge deleted items from Exchange server
7. Ability to produce a 'point in time' view of a mailbox
8. Ability to push agency defined folders from the exchange server
9. Flexible search delegation – ability to delegate to an individual to review a sub-set of users only as well as staff permissioned to look at all agency users
10. Deleted items need to be maintained when mail box is moved from one server or

Attachment 3

Email Shared Services To-Be Definition June 11, 2010 CAB Presentation

database to another within the deleted item retention period (30 days).

11. Exchange message monitoring ability delegated to agency.
12. Exchange needs to support SMTP and POP3 interfaces with applications
13. Ability to set auto deletion from folders based on time limit, by agency such as, calendar items.
14. Mailbox sizes set by agency (See recommendations.)
15. Ability to maintain previous client versions
16. Design preference includes the use of Cache for better performance
17. Ability for an agency to recover deleted items for their employee
18. Capacity to journal individual mailboxes
19. Delegate public folder administration to agency level
20. Ability to implement standard signature blocks at the user level – agency delegated.
21. Ability to review queues and logs, delegate to agency
22. Ability to use RPC over HTTPS
23. Exchange servers will have anti-virus on the databases
24. Ability to recover a users mailbox back to 30 days

Gateway

1. Shared Service needs to provide secure email transmission, encryption and 3rd party certificates.
2. Outbound blocking for SSN.
3. Email Filtering outbound to the internet delegated to the agency
4. Attachment scanning – agency delegated, files types to be blocked
5. Virus Scanning
6. Quarantine area can be delegated down to the agency and the agency user level
7. Service allows for delegation of message tracking to the individual agency
8. Service allows for delegation of white and black list creation and maintenance at the individual agency level
9. Service provides for inbound filtering
10. Agency statistical reporting ability
11. Real time monitoring tool/portal for agencies

Vault

1. Ability to set up agency specific rules to store or exclude mail items in the vault by specific retention parameters. (See recommendations.)
2. Discovery Accelerator available for agencies to permission some or all staff as a tool to search the vault
3. Search tool needs to perform subject line, message body and attachments
4. Ability to send a mail item from the Vault as a new mail item to recipients' in box.
5. Ability to present folders from the vault

FAX

1. Blackberry/ActiveSync
2. Unified Messaging - Store voice mail messages in email
3. Disaster Recovery Requirements
4. Customer Expectations/Improvements
5. SMTP Relay – agencies have a need to have server(s) to use for smtp relaying

Attachment 4

Implementation Topics to Address Shared Service Model, Appendix 2

Appendix 2 – From Shared Service Model

Assessment Outline for Proposed Shared Services

The purpose of this assessment is to foster consistent and complete evaluations of proposed shared services prior to approval for implementation. By properly addressing the subjects below a proposed shared service is much more likely to be implemented successfully and produce the intended results.

Depending on the scope and scale of the service being considered, a subset of these subjects could be addressed or the depth of treatment could vary based on direction from the Shared Services Governing Committee.

1. Purpose and support for the proposed shared service
 - a. Executive sponsor
2. Current Process or Service – As-Is baseline analysis
 - a. Description of like-services currently performed, including organization(s) and location(s)
 - b. Problem to be solved or opportunities to gain in current situation
3. Proposed Shared Service – To-Be Description
 - a. Description and location(s) of shared service including feature set(s), or options
 - b. Proposed provider and consumers (partners)
 - c. Service levels – beginning with the base level all consumers need
 - d. Roles for the provider and consumers, including the point of demarcation
 - e. Alternatives considered
 - f. Proposed business process changes
4. Business Case
 - a. Cost/Benefit analysis
 - i. Statewide level
 - ii. Agency level
 - b. Targeted savings, service quality improvement, other impacts
 - c. Business opportunities provided
 - d. Incentives for the provider and consumers
 - e. Description of how benefits will be realized by consumers and the provider
 - f. Risk assessment
5. Overview of the Implementation Plan
 - a. Transition approach, teams, costs, technology, facilities, other resources, schedule, risks/mitigations
 - b. Barriers and plans to overcome
6. Change Management Plan
 - a. Describe the changes to make and how they will be successfully managed
 - i. Organizational, personal, technical, financial, process, etc.
 - b. Describe the change control process and changes to address
7. Communications Plan

Attachment 4

Implementation Topics to Address Shared Service Model, Appendix 2

- a. Determine who must receive what information, and when
- 8. Organization
 - a. Identify the provider and all consumers
 - b. Roles and Responsibilities of all parties
 - c. Organizational placement and structure for the service
- 9. Governance
 - a. Ties to statewide governance models
 - b. Governance specific to the shared service
- 10. Related initiatives
- 11. Human resource considerations
 - a. Change to current job mix and assignments
 - i. Current staff levels supporting service
 - 1. Full time/Part time
 - 2. Organizational alignment
 - ii. Expected staff level supporting operation
 - 1. Full time/Part time
 - 2. Organization alignment
 - iii. Staff transition to new shared service
 - b. Support for staff
 - i. Training/Retraining plan and budget
 - ii. Job enrichment
 - iii. Incentives
 - c. Potential positions or similar opportunities with the shared service provider
 - d. Other job classifications staff are eligible to fill
 - i.
 - e. Required skill sets
 - i. Implementation
 - 1. Skills
 - 2. Workload
 - ii. Operation
 - 1. Skills
 - 2. Workload
- 12. Financing
 - a. Cost model
 - b. Pricing model(s)
 - c. Funding sources
 - i. Implementation
 - ii. Operations

Attachment 4

Implementation Topics to Address Shared Service Model, Appendix 2

- d. Total Return on Investment

13. Technology

- a. Current technology and architecture, including where it is deployed
- b. Proposed technology and architecture
- c. Need for re-engineering
- d. Availability requirements – are there maintenance windows or other outages planned by the provider agency that will impact consumer agencies.
- e. Disaster Recovery (DR) and Continuity of Operations (COOP) requirements - The system may support different levels of criticality and therefore different DR and COOP requirements for different agencies.

14. Facilities

15. Culture

- a. Cross-organization teams
- b. Current and future span of control
- c. Staff transition perceptions on the shared service

16. Controls

- a. Service Levels
- b. Regulatory requirements
- c. Management structure

17. Performance Measurement